

4.2.D. 0601020508.

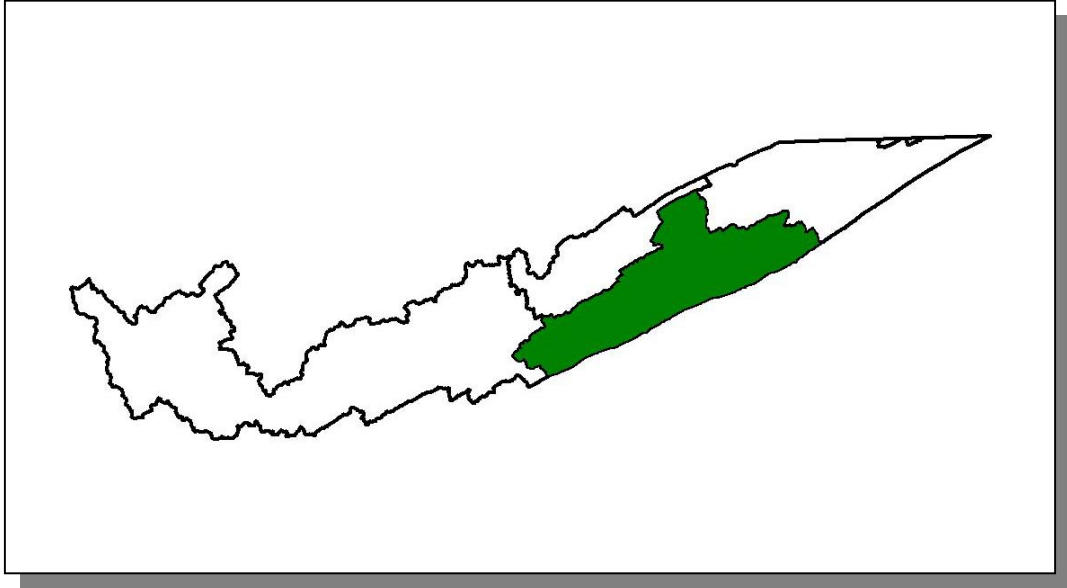


Figure 4-100. Location of Subwatershed 0601020508. All Upper Clinch River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.D.i. 060102050801 (Clinch River).

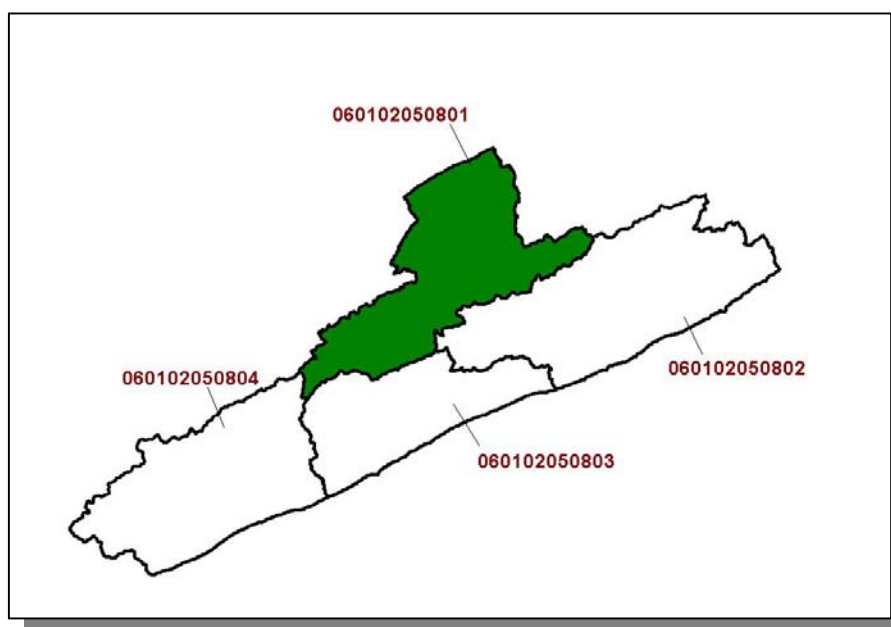


Figure 4-101. Location of Subwatershed 060102050801. All Upper Clinch River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

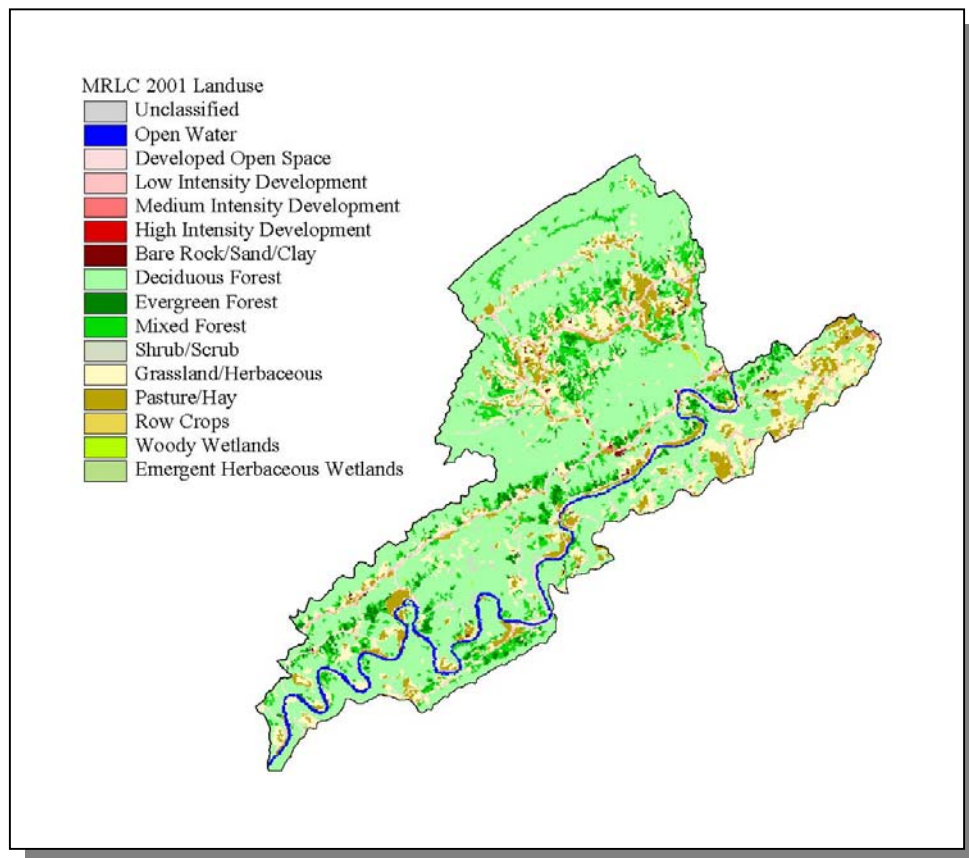


Figure 4-102. Illustration of Land Use Distribution in Subwatershed 060102050801.

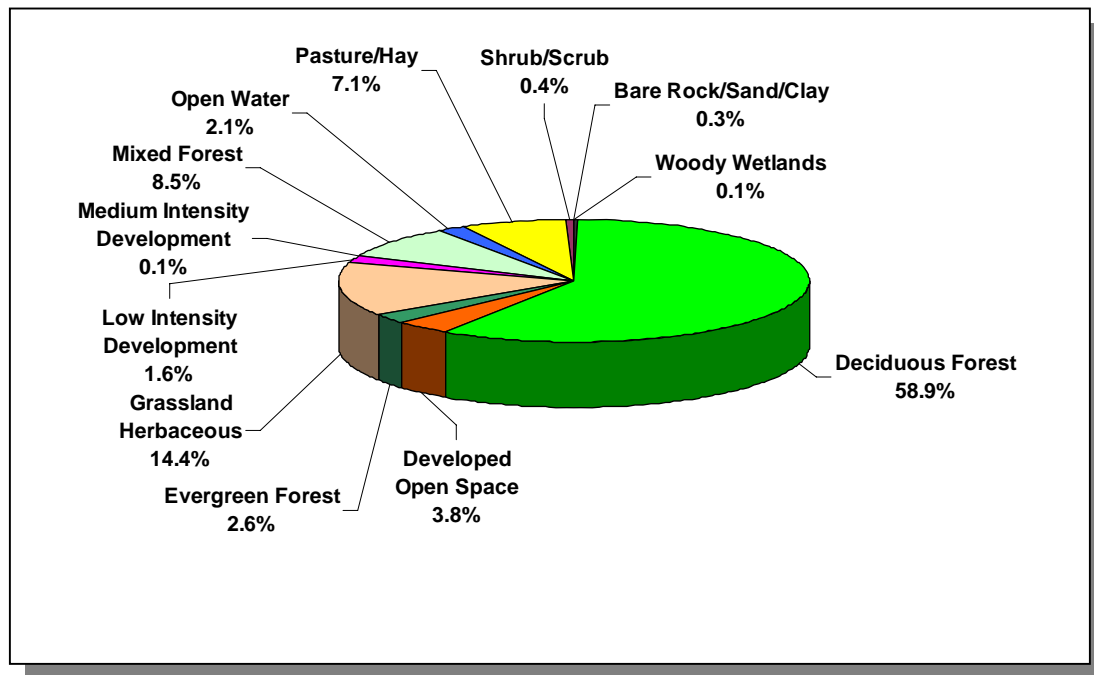


Figure 4-103. Land Use Distribution in Subwatershed 060102050801. More information is provided in Appendix IV.

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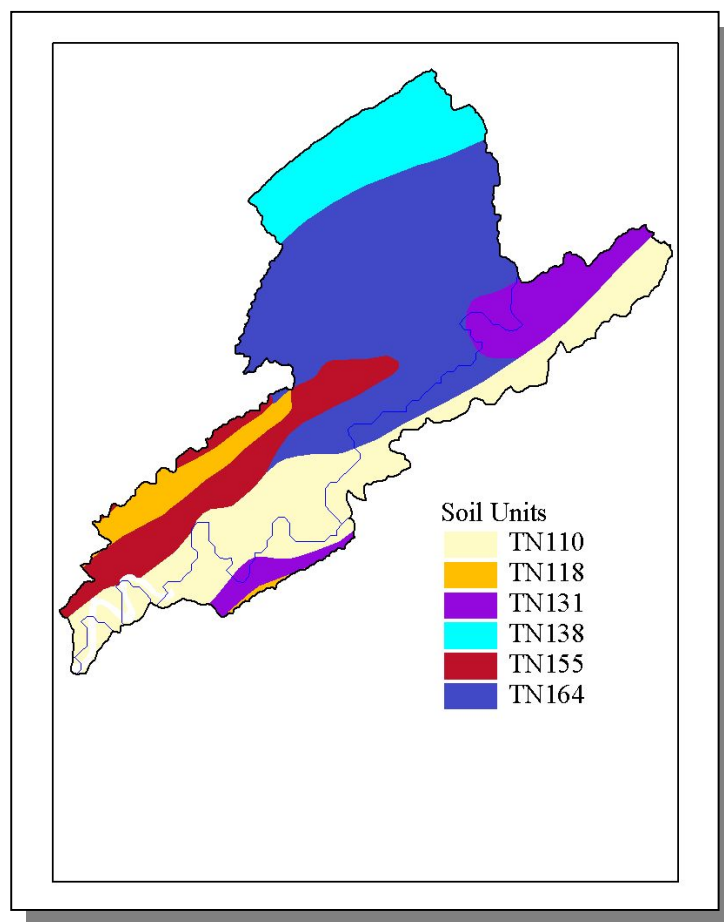


Figure 4-104. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050801.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN110	0.00	B	2.22	4.96	Loam	0.31
TN118	0.00	C	6.52	5.12	Loam	0.29
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN138	0.00	C	2.48	4.26	Sandy Loam	0.22
TN155	0.00	C	1.71	5.31	Loam	0.32
TN164	0.00	C	4.48	5.15	Loam	0.25

Table 4-96. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050801. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Claiborne	26,137	28,963	29,862	2.03	532	589	607	14.1
Grainger	17,095	19,456	20,659	0.57	97	110	117	20.6
Hancock	6,739	6,801	6,786	13.1	883	891	889	0.7
Total	49,971	55,220	57,307		1,512	1,590	1,613	6.7

Table 4-97. Population Estimates in Subwatershed 060102050801.

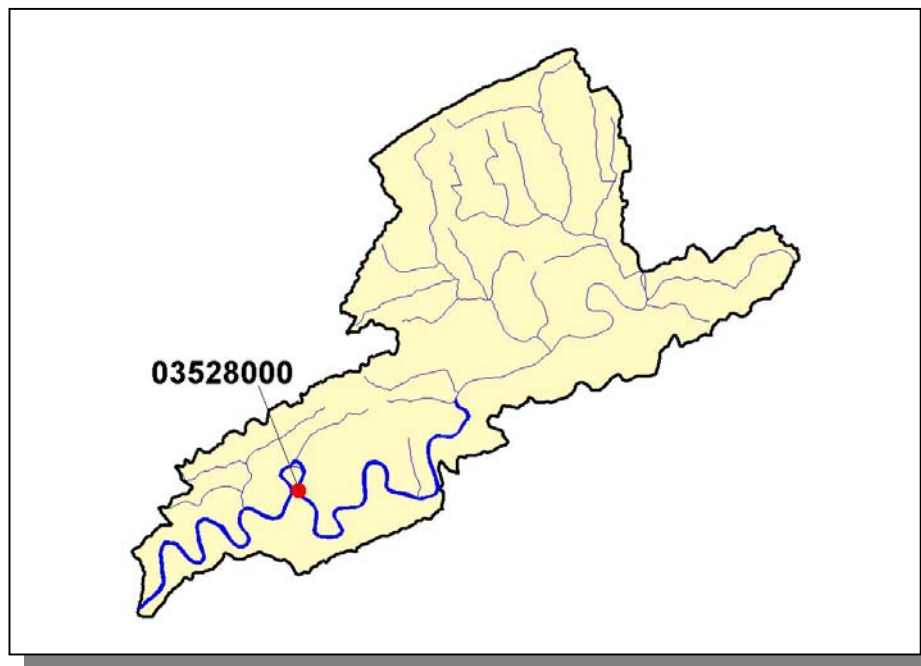


Figure 4-105. Location of Historical Streamflow Data Collection Sites in Subwatershed 060102050801. More information is provided in Appendix IV.

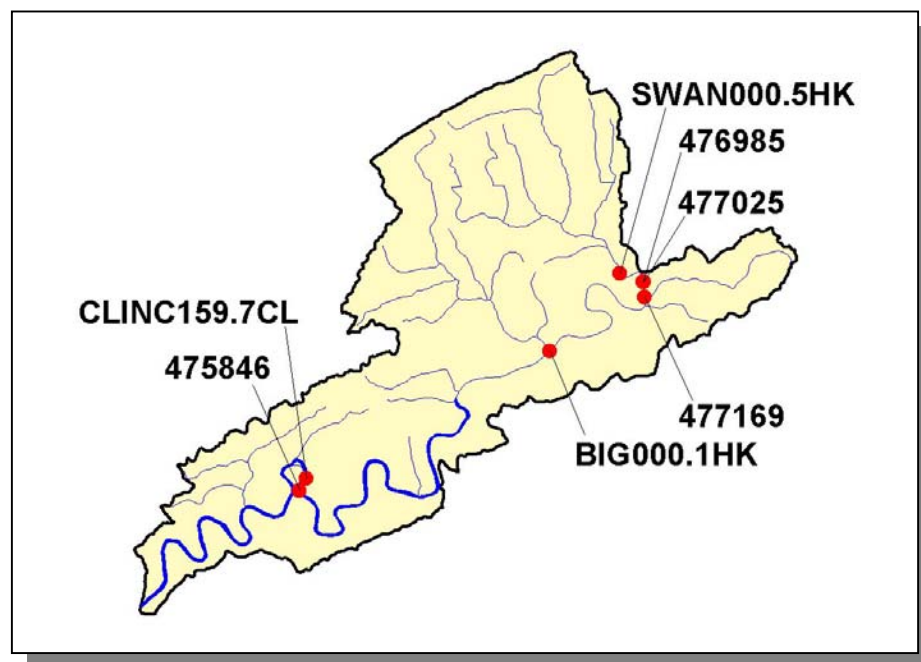


Figure 4-106. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060102050801. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

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4.2.D.i.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.D.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
922	1,855	18	<5	<5	9

Table 4-98. Summary of Livestock Count Estimates in Subwatershed 060102050801. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Claiborne	18,697	36,566	1,082	420	0	165
Grainger	12,115	23,927	942	1,184	510	195
Hancock	7,079	14,311	89	364	0	67

Table 4-99. Summary of Livestock Count Estimates in Claiborne, Grainger, and Hancock Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Claiborne	167.6	167.6	2.6	12.1
Grainger	102.6	102.6	0.3	1.8
Hancock	92.9	92.9	2.7	14.2

Table 4-100. Forest Acreage and Annual Removal Rates (1987-1994) in Claiborne, Grainger, and Hancock Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.97
Grass (Hayland)	0.64
Legumes, Grass (Hayland)	0.60
Grass, Forbs, Legumes (Mixed Pasture)	0.64
Corn (Row Crops)	2.61
Tobacco (Row Crops)	22.13
Farmsteads and Ranch Headquarters	0.15

Table 4-101. Annual Estimated Total Soil Loss in Subwatershed 060102050801.

4.2.D.ii. 060102050802 (Big War Creek).

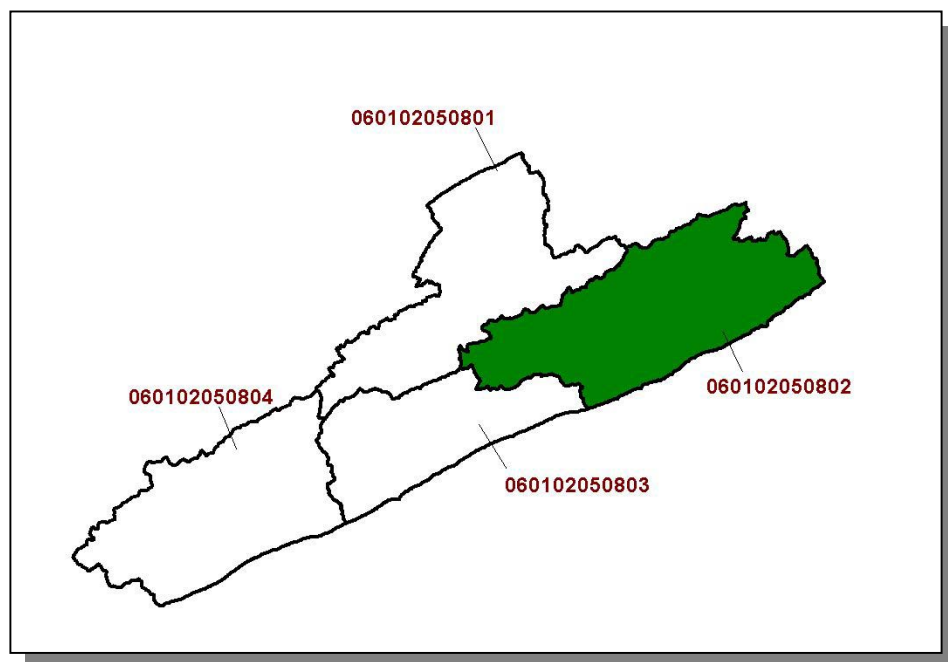


Figure 4-107. Location of Subwatershed 060102050802. All Upper Clinch River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

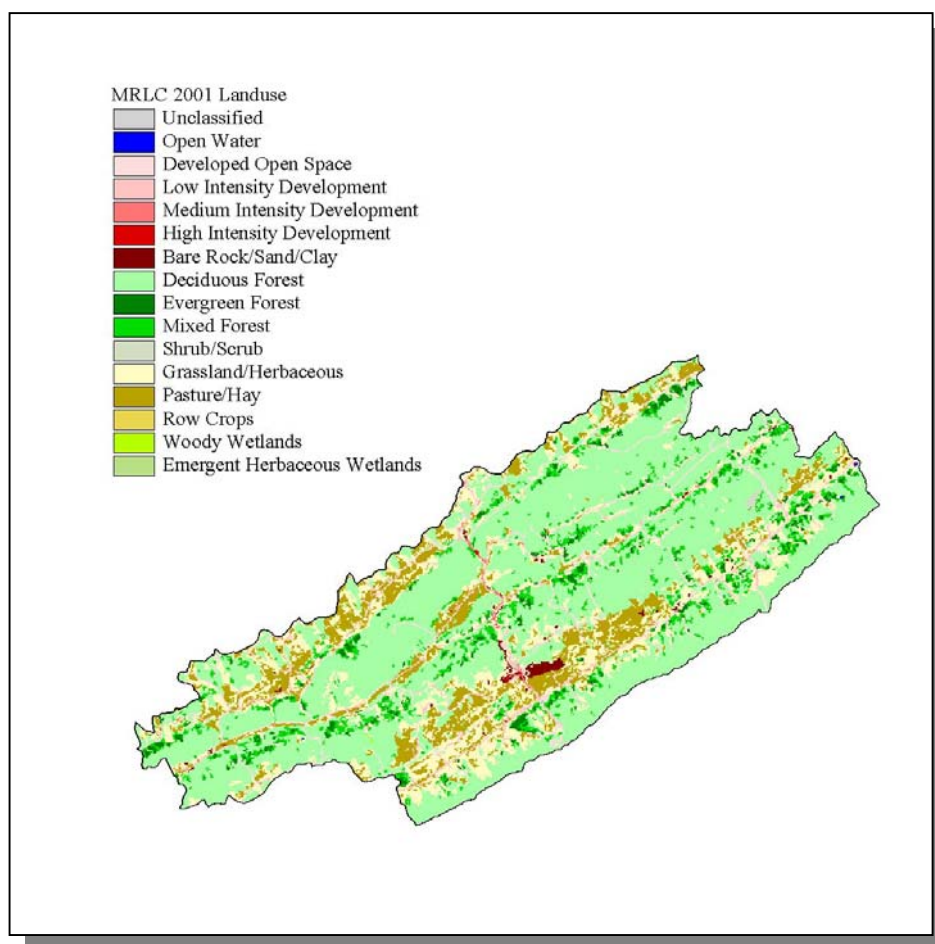


Figure 4-108. Illustration of Land Use Distribution in Subwatershed 060102050802.

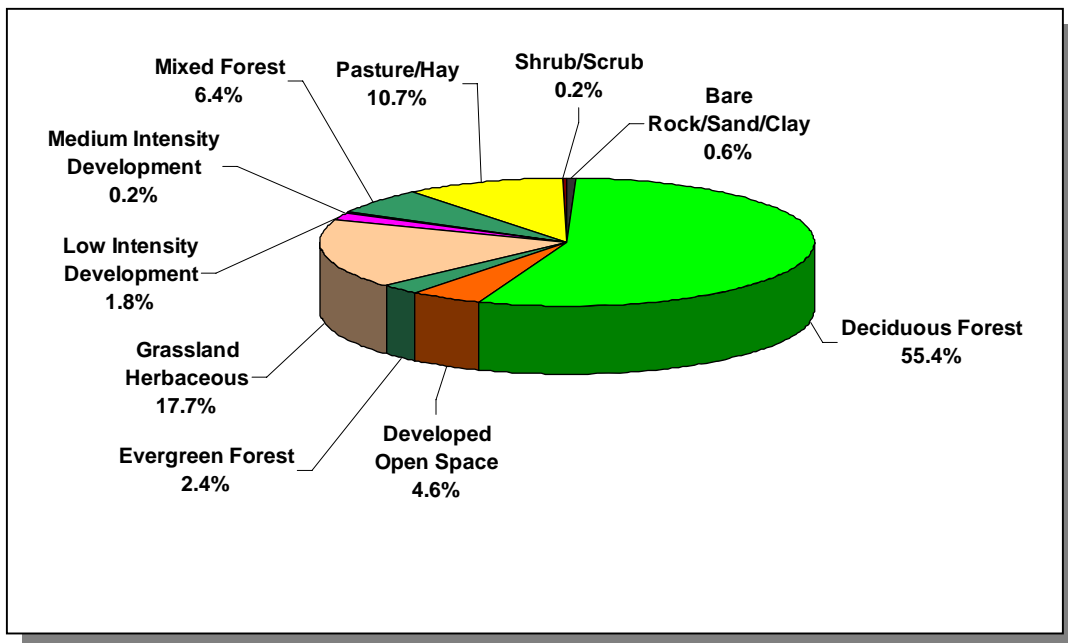


Figure 4-109. Land Use Distribution in Subwatershed 060102050802. More information is provided in Appendix IV.

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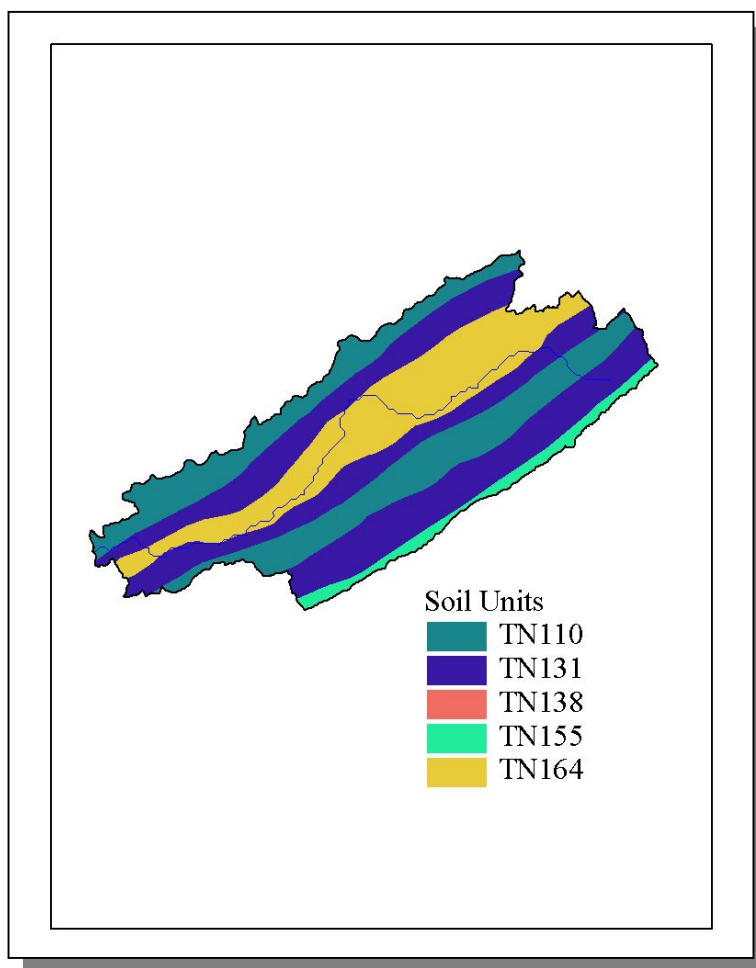


Figure 4-110. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050802.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN110	0.00	B	2.22	4.96	Loam	0.31
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN138	0.00	C	2.48	4.26	Sandy Loam	0.22
TN155	0.00	C	1.71	5.31	Loam	0.32
TN164	0.00	C	4.48	5.15	Loam	0.25

Table 4-102. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050802. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Grainger	17,095	19,456	20,659	0.09	16	18	19	18.8
Hancock	6,739	6,801	6,786	17.32	1,167	1,178	1,175	0.7
Hawkins	44,565	48,821	53,563	1.91	852	934	1,025	20.3
Total	68,399	75,078	81,008		2,035	2,130	2,219	9.0

Table 4-103. Population Estimates in Subwatershed 060102050802.

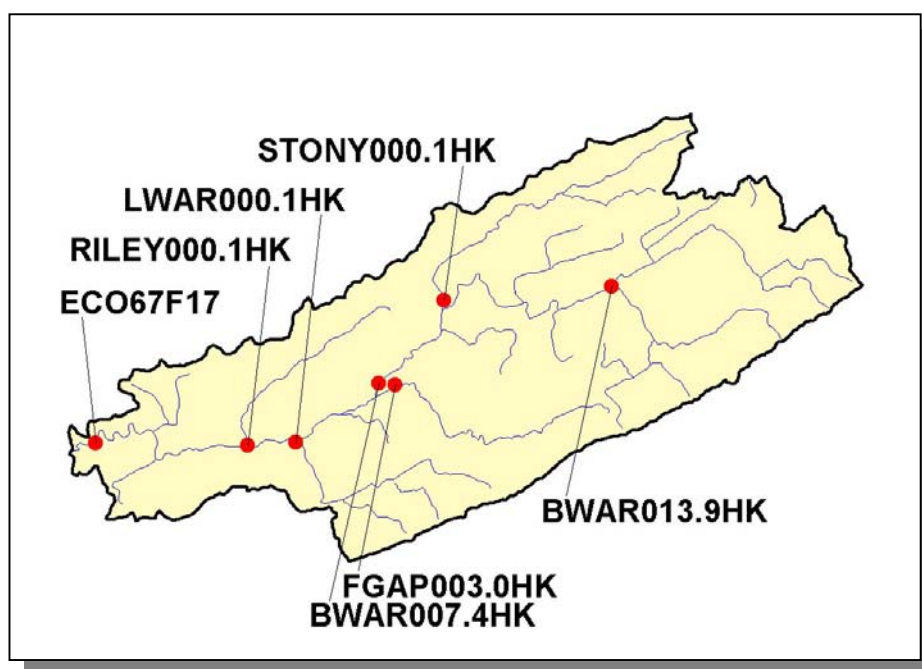


Figure 4-111. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060102050802. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.D.ii.a. Point Source Contributions.

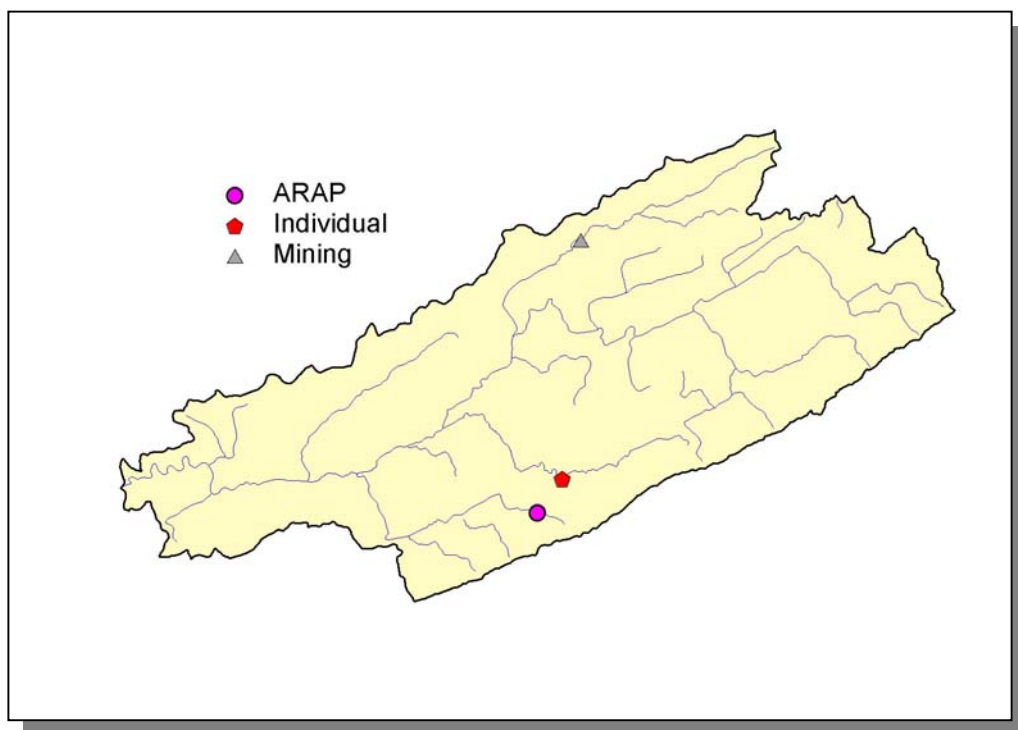


Figure 4-112. Location of Permits Issued in Subwatershed 060102050802. More information, including the names of facilities, is provided in Appendix IV.

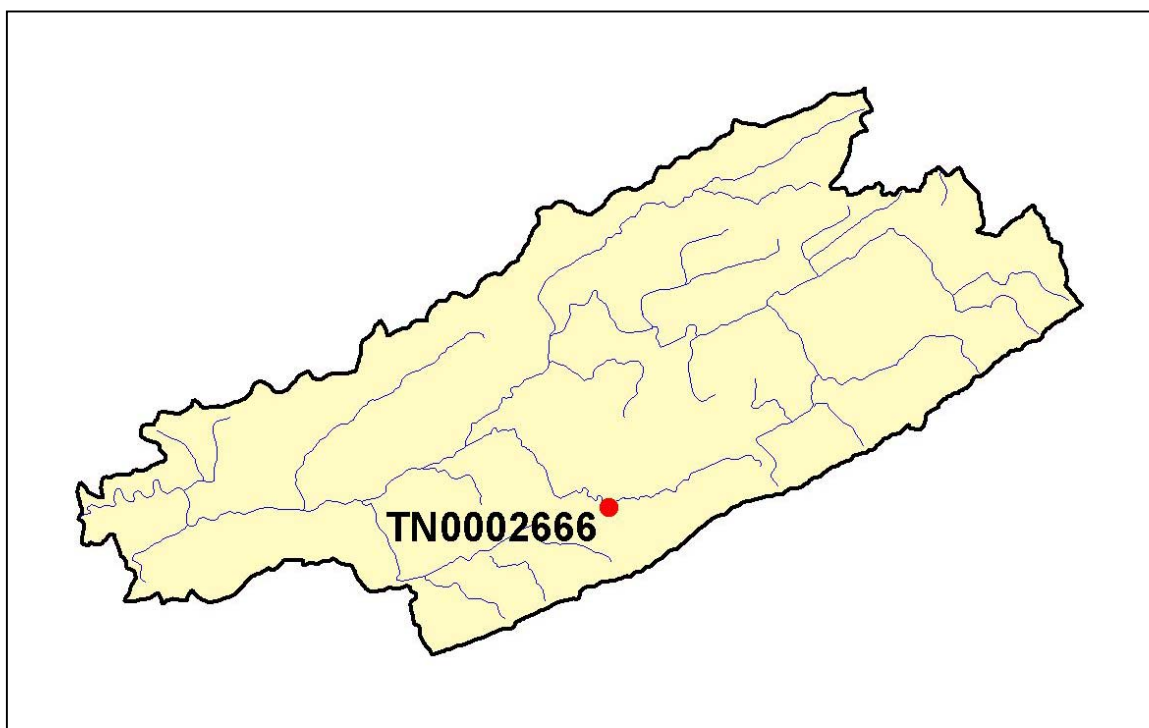


Figure 4-113. Location of Active NPDES Sites in Subwatershed 060102050802. More information, including the names of facilities, is provided in Appendix IV.

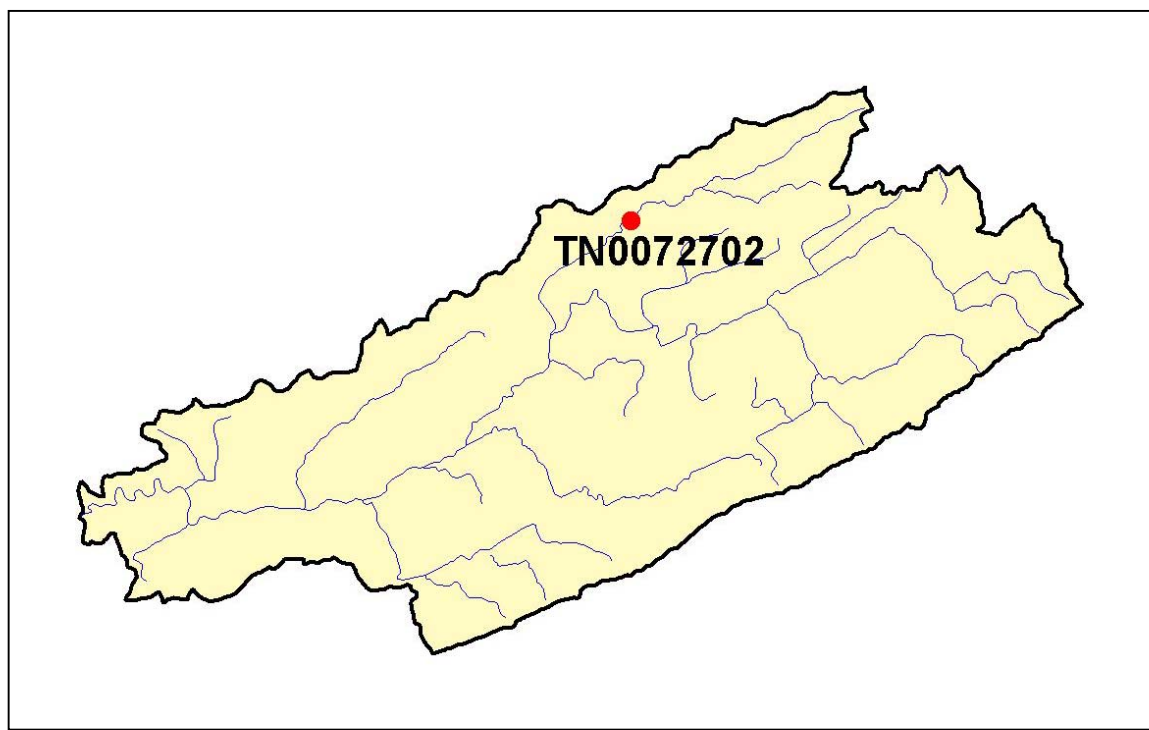


Figure 4-114. Location of Active Mining Sites in Subwatershed 060102050802. More information, including the names of mining operations, is provided in Appendix IV.

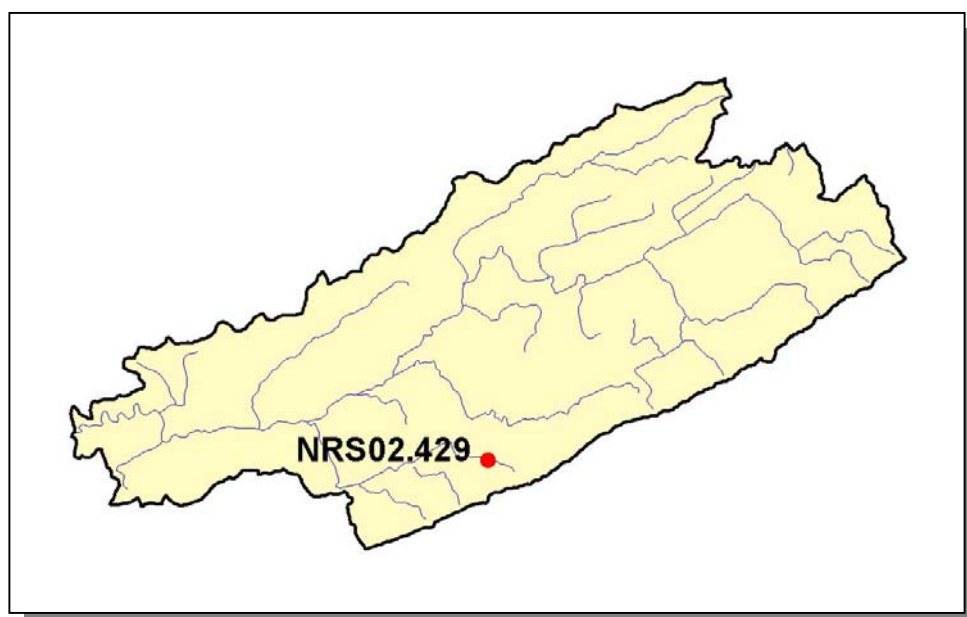


Figure 4-115. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 060102050802. More information is provided in Appendix IV.

4.2.D.ii.a.i. Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 060102050802:

- TN0002666 (Treadway Water and Sewer STP) discharges to Flat Gap Creek @ RM 3.0 and Big War Creek @ RM 7.0

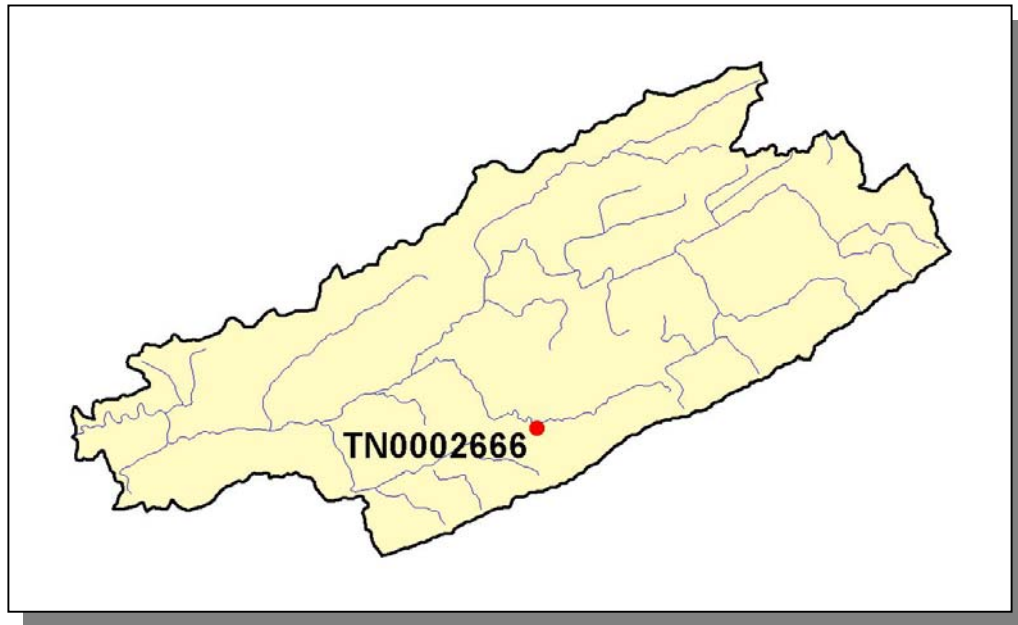


Figure 4-116. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 060102050802. More information, including the names of facilities, is provided in Appendix IV.

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PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0002666				0	

Table 4-104. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 060102050802. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT #	FLOW
TN0002666	X

Table 4-105. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 060102050802.

PERMIT #	CBOD ₅	FECAL COLIFORM	NH ₃	TRC	TSS	SETTLEABLE SOLIDS	DO	pH
TN0002666	X	X	X	X	X	X	X	X

Table 4-106. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 060102050802. CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

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4.2.D.ii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
1,857	3,734	31	5	5	18

Table 4-107. Summary of Livestock Count Estimates in Subwatershed 060102050802. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Grainger	12,115	23,927	942	1,184	510	195
Hancock	7,079	14,311	89	364	0	67
Hawkins	18,796	36,429	903	1,079	442	243

Table 4-108. Summary of Livestock Count Estimates in Grainger, Hancock and Hawkins Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Grainger	102.6	102.6	0.3	1.8
Hancock	92.9	92.9	2.7	14.2
Hawkins	177.4	177.4	0.4	2.1

Table 4-109. Forest Acreage and Annual Removal Rates (1987-1994) in Grainger, Hancock, and Hawkins Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	2.08
Grass (Hayland)	0.63
Legumes, Grass (Hayland)	0.41
Legumes (Haylands)	0.16
Grass, Forbs, Legumes (Mixed Pasture)	0.74
Corn (Row Crops)	2.44
Tobacco (Row Crops)	21.62
Other Vegetable and Truck Crops	33.50
Farmsteads and Ranch Headquarters	0.11

Table 4-110. Annual Estimated Total Soil Loss in Subwatershed 060102050802.

4.2.D.iii. 060102050803 (Indian Creek).

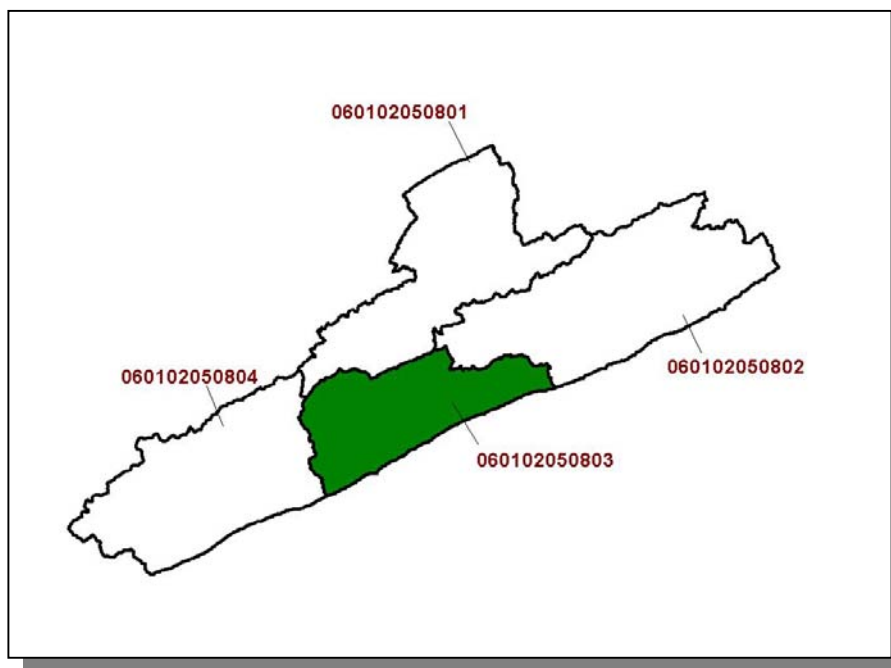


Figure 4-117. Location of Subwatershed 060102050803. All Upper Clinch River HUC-12 subwatershed boundaries in Tennessee are shown for reference.



Figure 4-118. Illustration of Land Use Distribution in Subwatershed 060102050803.

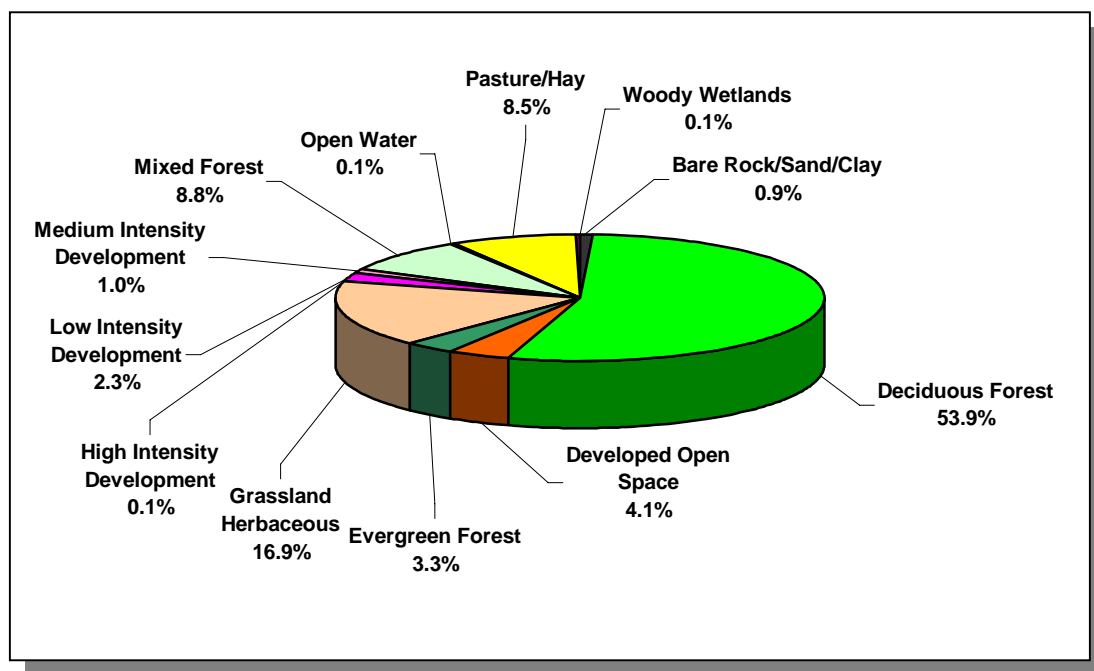


Figure 4-119. Land Use Distribution in Subwatershed 060102050803. More information is provided in Appendix IV.

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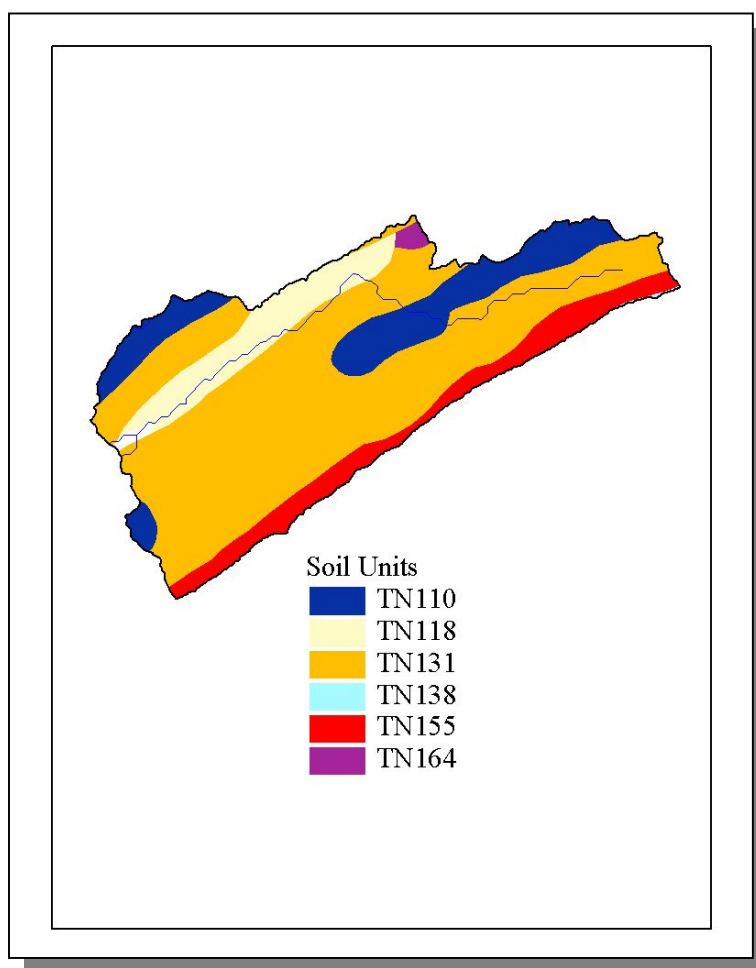


Figure 4-120. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050803.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN110	0.00	B	2.22	4.96	Loam	0.31
TN118	0.00	C	6.52	5.12	Loam	0.29
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN138	0.00	C	2.48	4.26	Sandy Loam	0.22
TN155	0.00	C	1.71	5.31	Loam	0.32
TN164	0.00	C	4.48	5.15	Loam	0.25

Table 4-111. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050803. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Grainger	17,095	19,456	20,659	7.98	1,364	1,552	1,648	20.8
Hancock	6,739	6,801	6,786	1.55	104	105	105	1.0
Total	23,834	16,257	27,445		1,468	1,657	1,753	19.4

Table 4-112. Population Estimates in Subwatershed 060102050803.

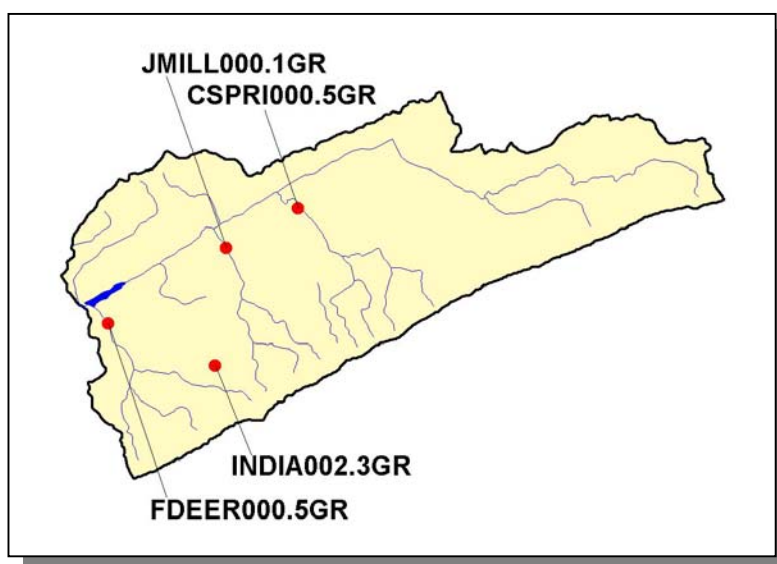


Figure 4-121. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060102050803. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.D.iii.a. Point Source Contributions.

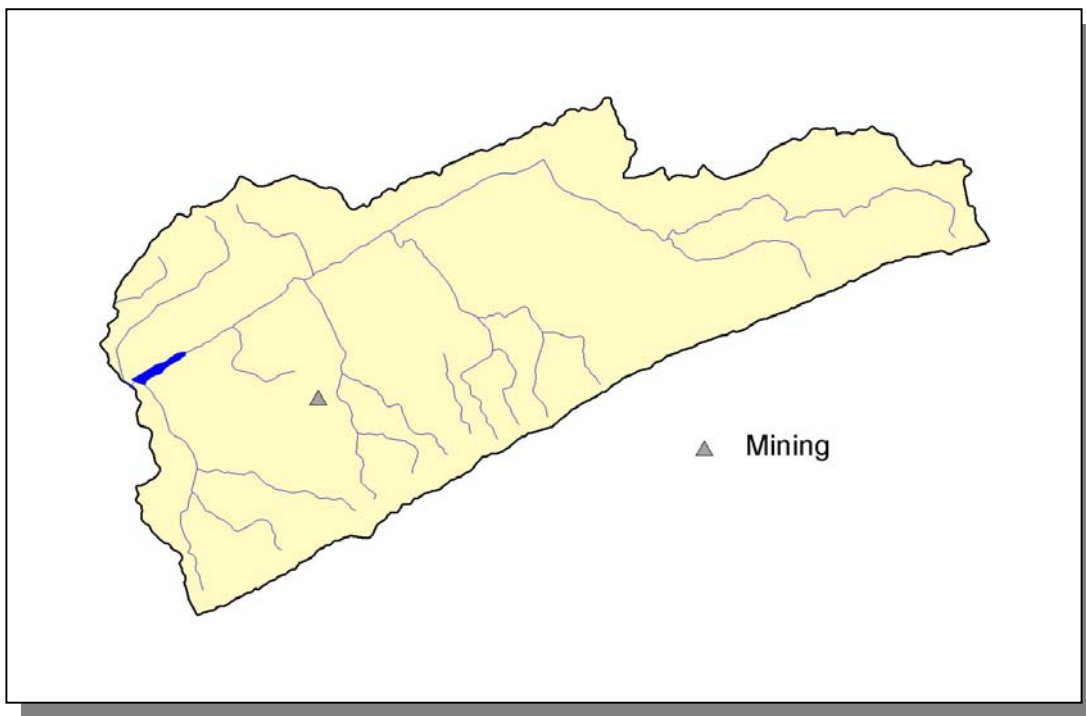


Figure 4-122. Location of Permits Issued in Subwatershed 060102050803. More information, including the names of facilities, is provided in Appendix IV.

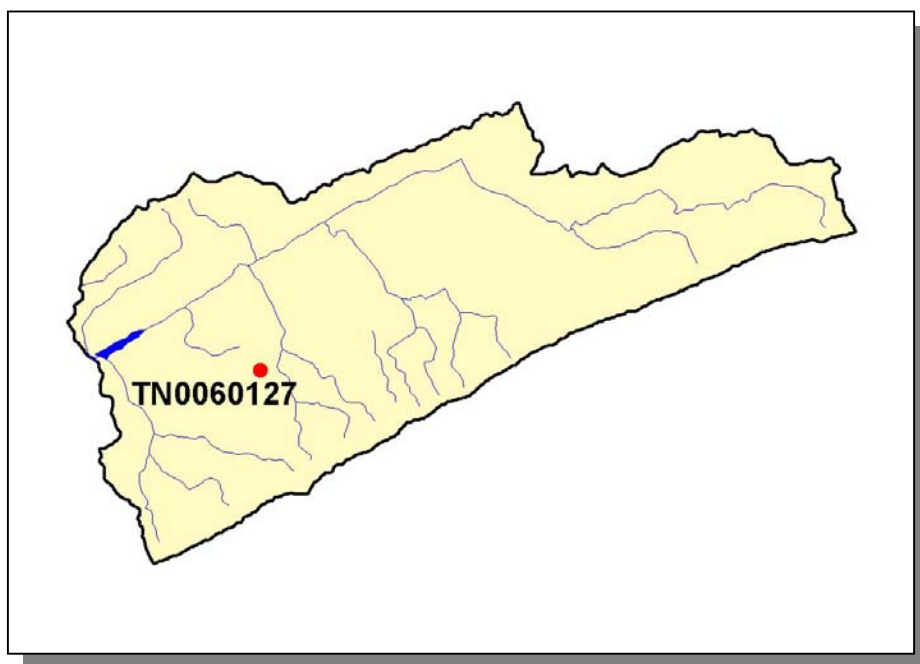


Figure 4-123. Location of Active Mining Sites in Subwatershed 060102050803. More information, including the names of mining operations, is provided in Appendix IV.

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4.2.D.iii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
738	1,464	48	<5	25	11

Table 4-113. Summary of Livestock Count Estimates in Subwatershed 060102050803. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Claiborne	18,697	36,566	1,082	420	0	165
Grainger	12,115	23,927	942	1,184	510	195
Hancock	7,079	14,311	89	364	0	67

Table 4-114. Summary of Livestock Count Estimates in Claiborne, Grainger, and Hancock Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Claiborne	167.6	167.6	2.6	12.1
Grainger	102.6	102.6	0.3	1.8
Hancock	02.9	92.9	2.7	14.2

Table 4-115. Forest Acreage and Annual Removal Rates (1987-1994) in Claiborne, Grainger, and Hancock Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.19
Grass (Hayland)	0.36
Legumes, Grass (Hayland)	0.60
Grass, Forbs, Legumes (Mixed Pasture)	0.84
Corn (Row Crops)	5.29
Tobacco (Row Crops)	9.14
Farmsteads and Ranch Headquarters	0.46

Table 4-116. Annual Estimated Total Soil Loss in Subwatershed 060102050803.

4.2.D.iv. 060102050804 (Clinch River).

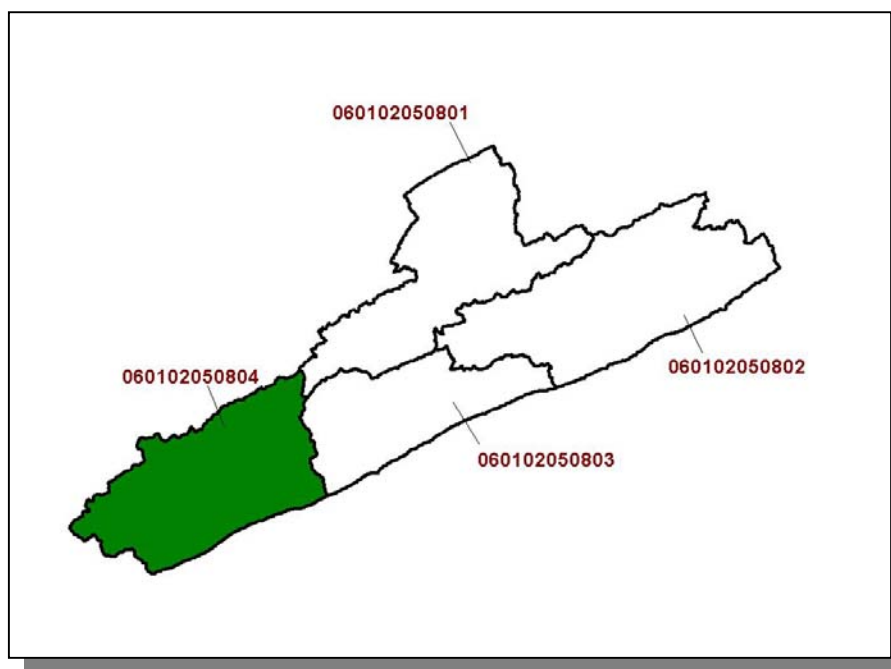


Figure 4-124. Location of Subwatershed 060102050804. All Upper Clinch River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

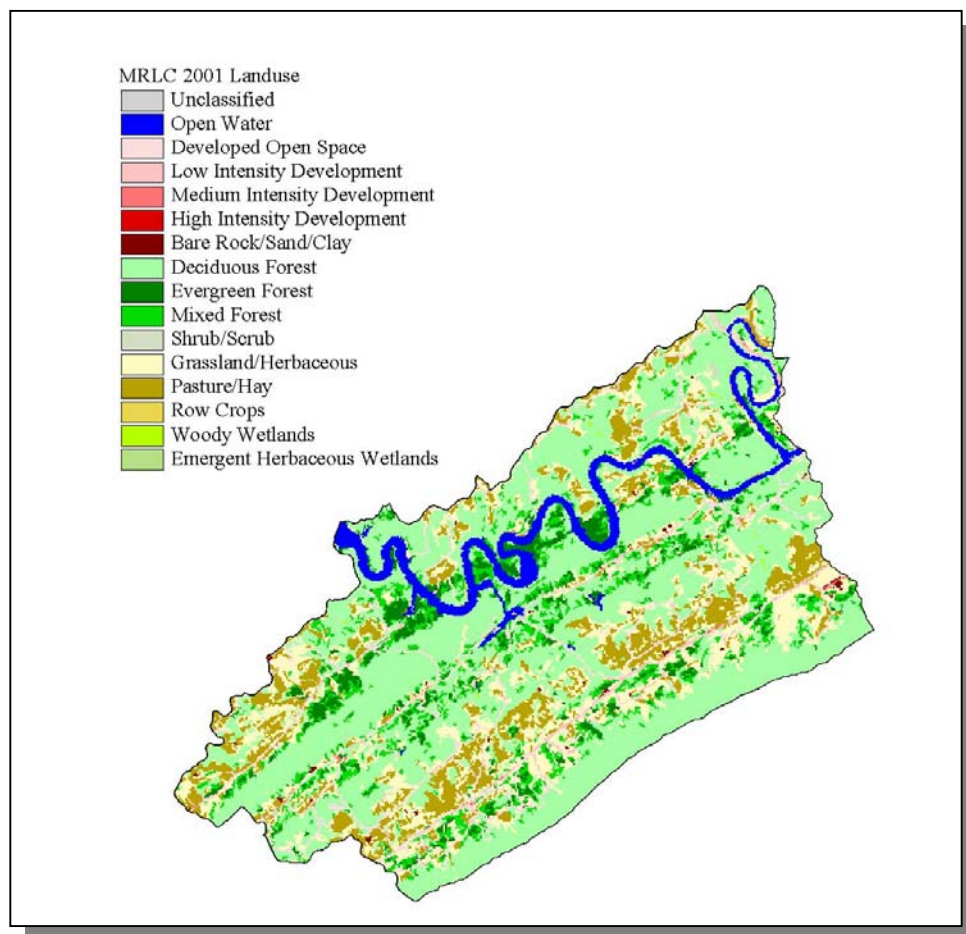


Figure 4-125. Illustration of Land Use Distribution in Subwatershed 060102050804.

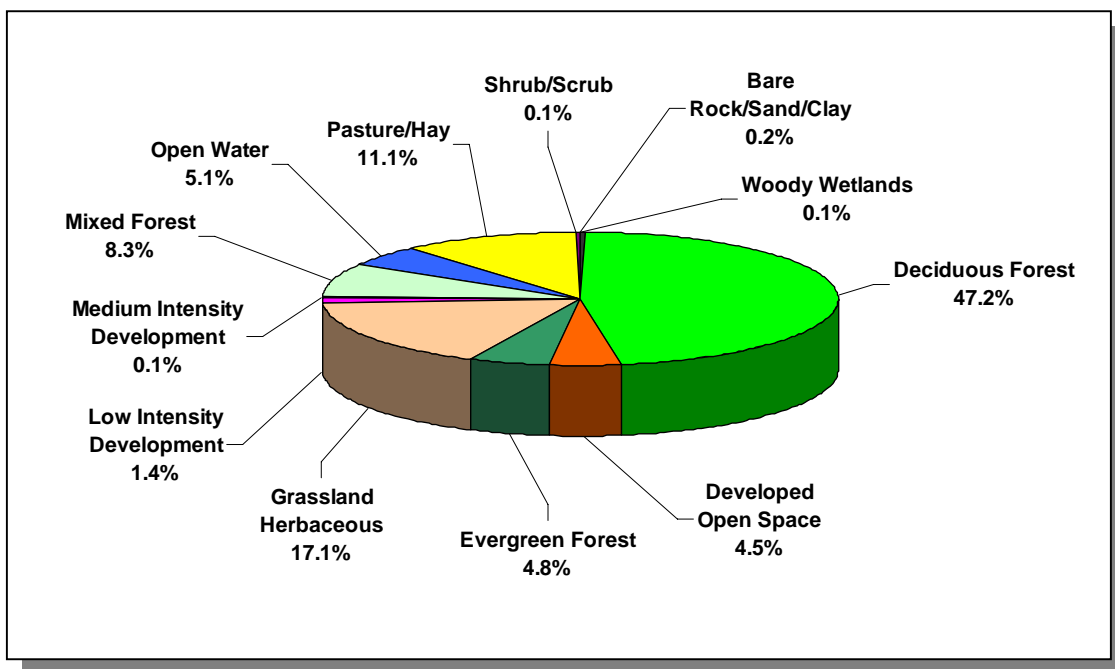


Figure 4-126. Land Use Distribution in Subwatershed 060102050804. More information is provided in Appendix IV.

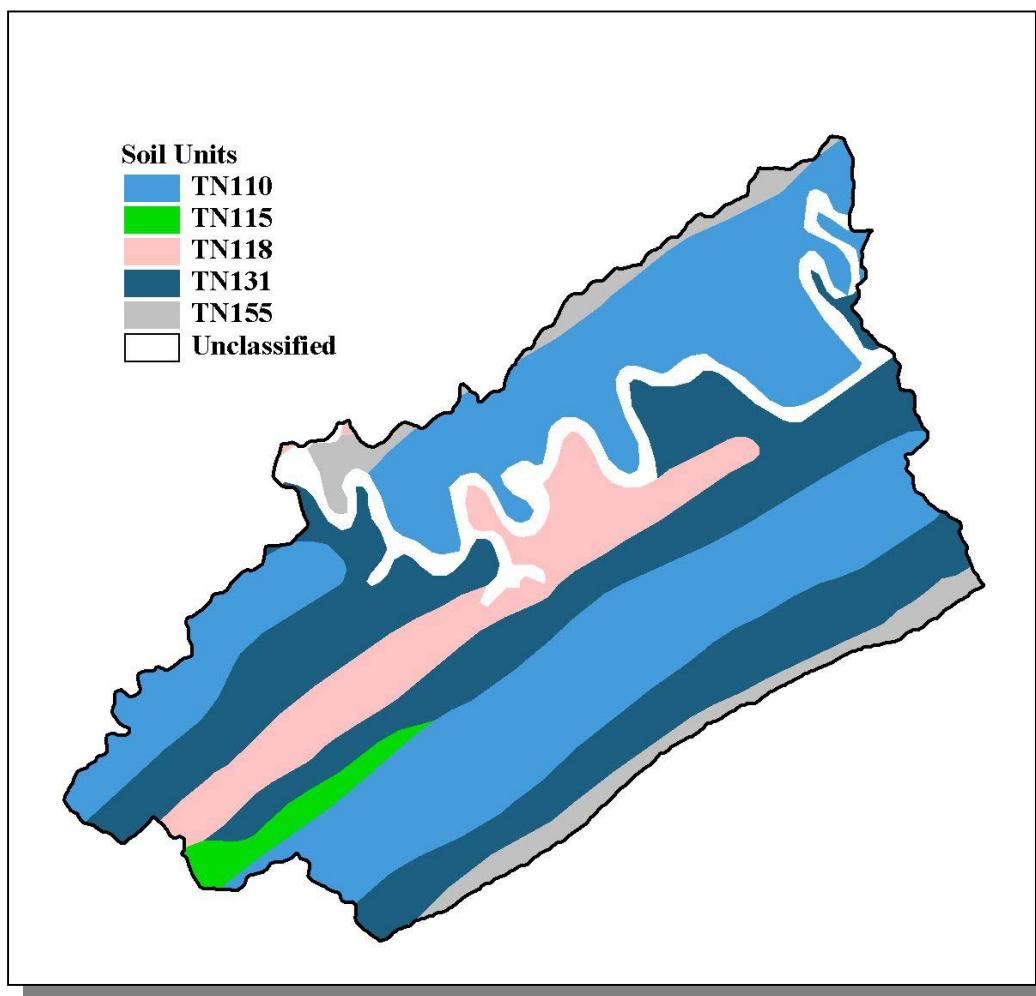


Figure 4-127. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050804.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN110	0.00	B	2.22	4.96	Loam	0.31
TN115	0.00	C	1.41	5.15	Silty Loam	0.36
TN118	0.00	C	6.52	5.12	Loam	0.29
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN155	0.00	C	1.71	5.31	Loam	0.32

Table 4-117. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102050804. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Claiborne	26,137	28,963	29,862	2.32	606	671	692	14.2
Grainger	17,095	19,456	20,659	9.64	1,648	1,875	1,991	20.8
Total	43,232	48,419	50,521		2,254	2,546	2,683	19.0

Table 4-118. Population Estimates in Subwatershed 060102050804.

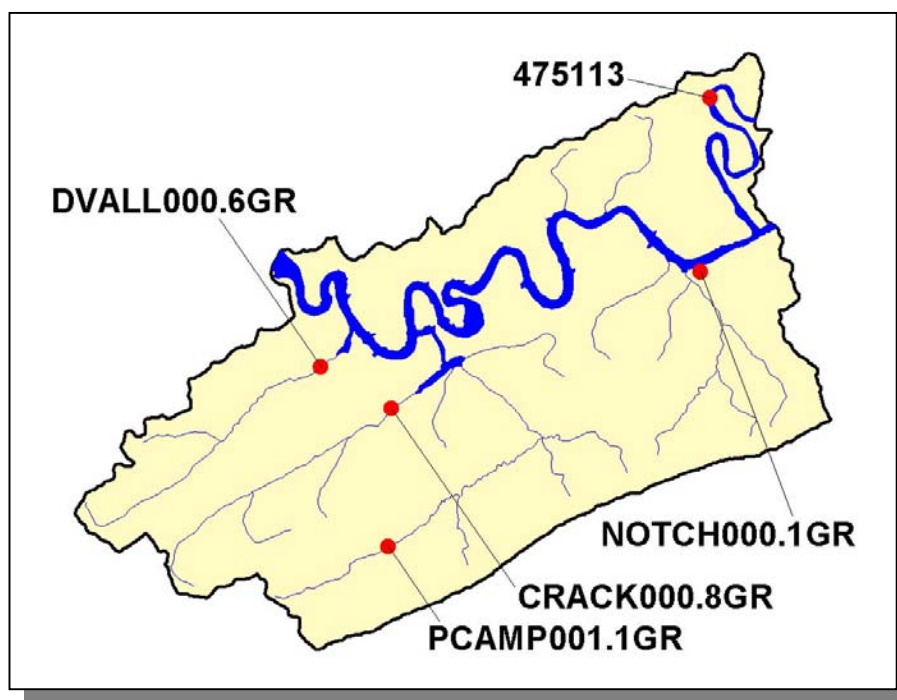


Figure 4-128. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 060102050804. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

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4.2.D.iv.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.D.iv.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
1,081	2,130	79	<5	34	15

Table 4-119. Summary of Livestock Count Estimates in Subwatershed 060102050804. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Claiborne	18,697	36,566	1,082	420	0	165
Grainger	12,115	23,927	942	1,184	510	195

Table 4-120. Summary of Livestock Count Estimates in Claiborne and Grainger Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Claiborne	167.60	167.60	2.6	12.1
Grainger	102.6	102.6	0.3	1.8

Table 4-121. Forest Acreage and Annual Removal Rates (1987-1994) in Claiborne and Grainger Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.83
Grass (Hayland)	0.32
Legumes, Grass (Hayland)	0.60
Grass, Forbs, Legumes (Mixed Pasture)	0.65
Corn (Row Crops)	5.69
Tobacco (Row Crops)	7.21
Farmsteads and Ranch Headquarters	0.50

Table 4-122. Annual Estimated Total Soil Loss in Subwatershed 060102050804.